DOCUMENT RESUME

ED 364 872 CS 011 515

AUTHOR Richgels, Donald J.; Barnhart, June E.
TITLE Literacy Development in Preschool and Kindergarten Children: Patterns between Groups and across Tasks. Literacy Research Report No. 17.
INSTITUTION Northern Illinois Univ., DeKalb. Curriculum and Instruction Reading Clinic.
PUB DATE Feb 94
NOTE 16p.
AVAILABLE FROM Northern Illinois University, The Reading Clinic, 119 Graham Hall, DeKalb, IL 60115 ($3.50 postage included).
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Beginning Reading; Comparative Analysis; *Developmental Stages; Early Childhood Education; Invented Spelling; Kindergarten Children; Preschool Children; *Reading Achievement; Reading Research; *Writing Achievement; Writing Research
IDENTIFIERS *Emergent Literacy

ABSTRACT

A study examined the concurrent development of reading and writing behaviors in a cross section of preschool and kindergarten children across diverse language and literacy tasks. Subjects, 16 preschool children attending a university laboratory school and 12 kindergarten children from two classrooms in a large suburban school district, were presented with an array of formal and informal language and literacy tasks, including two standardized tests, a previously developed research instrument concerning invented spelling, and two informal tasks. Results indicated several statistically significant relationships between performances on the literacy and language tasks, but the pattern of relatedness was more unified with the kindergarten group and more varied with the preschool group. Findings suggest that even very young children exhibit considerable variety across tasks and from one child to another. (Contains 23 references and 2 data tables.) (RS)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Northern Illinois University

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
P. RICHGELS
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Literacy Research Report No. 17

LITERACY DEVELOPMENT IN PRESCHOOL AND KINDERGARTEN CHILDREN: PATTERNS BETWEEN GROUPS AND ACROSS TASKS

Donald J. Richgels
Northern Illinois University
June E. Barnhart
Northern Illinois University

February 1994

ED 364 872

Literacy Research and Reports

Curriculum and Instruction
Reading Clinic—119 Graham
DeKalb, Illinois 60115

CS011515

BEST COPY AVAILABLE

Literacy Research Report No. 17

LITERACY DEVELOPMENT IN PRESCHOOL AND KINDERGARTEN CHILDREN: PATTERNS BETWEEN GROUPS AND ACROSS TASKS

Donald J. Richgels
Northern Illinois University
June E. Barnhart
Northern Illinois University

February 1994

Northern Illinois University
Reading Clinic–119 Graham
DeKalb, Illinois 60115
815-753-1416

Literacy Development in Preschool and Kindergarten Children: Patterns Between Groups and Across Tasks

Research in emergent literacy now describes young children as showing a variety of not-yet-conventional reading and writing behaviors prior to entering school (Barnhart, 1988; Clay, 1975; Harste, Burke & Woodward, 1983). Evidence now supports the proposition that these behaviors are legitimate aspects of the development of reading and writing that precede and develop into conventional literacy (Sulzby, 1988; Teale & Sulzby, 1986).

Researchers are now considering such manifestations of emerging literacy as children's readings of familiar story books before they are fully literate (Holdaway, 1979; Sulzby, 1985); their developing notions of the forms and functions of print in their environments (Goodman & Goodman, 1979; McGee, Lomax & Head, 1988); and their writing with scribbles, letter strings, or invented spelling (Beers & Henderson, 1977; Burns & Richgels, 1989; Read, 1971; Sulzby, Barnhart, & Hieshima, 1989). This accumulating knowledge about young children's literacy development has reshaped our understanding so that we now consider the links between reading and writing and how development of one supports development of the other.

This research suggests that while most children have a considerable amount of knowledge about conventional reading and writing, there are critical differences in the ways that children develop as readers and writers. Further, this work has raised new questions about literacy development. Presently, debates on literacy learning involve issues related to the "connections" between reading and writing (e.g., Tierney & Pearson, 1985), as well as the concurrent development of all language processes, spoken and written (e.g., Dyson, 1984; Ferreiro & Teberosky, 1982; Sulzby, Barnhart, &

Hieshima, 1989). However, while studies to date have yielded rich descriptions of children's emergent reading and writing behaviors, they have tended to focus either on reading or writing development. Only a relatively few studies (e.g., Dahl, 1988; Harste, Burke, & Woodward, 1983) have presented an assortment of reading and writing tasks with various literacy and language demands to the same sample of children. As a result, our insights into the complex process of reading/writing development have been fragmented.

The purpose of the present study was to examine the concurrent development of reading and writing behaviors in a cross section of preschool and kindergarten children across diverse language and literacy tasks. Along these lines, the following questions guided the present study: (1) What are the differences in 4- and 5-year-olds' emergent reading and writing behaviors? and (2) What is the relationship between children's performances on formal and informal language and literacy tasks?

Method

Subjects were sixteen preschool and twelve kindergarten children. The preschool children attended a university laboratory school three- and four-year-old program and ranged in age from 3 years 10 months to 4 years 11 months at the beginning of the study. The kindergartners were drawn from two classrooms in a large suburban school district and ranged in age from 4 years 5 months to 5 years 9 months.

We presented the children with an array of formal and informal language and literacy tasks in order to make comparisons within and between age groups, as well as within and between tasks. By formal tasks we mean relatively prescribed or close-ended tasks. These included two standardized tests: the Peabody Picture Vocabulary Test-Revised (PPVT-R) (Dunn & Dunn, 1981) and the Test of Early Reading Ability (TERA) (Reid, Hresko, & Hammill, 1989) as well as a previously developed research instrument, the Invented Spelling Task (InvSp) (Burns & Richgels, 1989). We considered

InvSp to be relatively closed-ended because it uses a 10-word spelling list, although it does allow for subjects to use any of many invented spelling strategies. In contrast, the informal tasks, Independent Storybook Reading (Stbk) (Sulzby, 1985) and Story Writing Production (StPr) (Sulzby, Barnhart, & Hieshima, 1989), were relatively more open-ended, allowing subjects more latitude in defining what the tasks were. For example, a child's story writing for StPr might involve any of the many invented spelling strategies available to him or her in InvSp, but likewise, it might not rely on spelling at all, nor even use of words or letters at all, as in a drawn or scribbled composition.

For the PPVT-R, children are presented with four-picture arrays and asked to point to the picture that illustrates the word spoken by the person giving the test. The TERA uses a flip-card format and includes items that test alphabet knowledge, concepts about print, and construction of meaning. The last is described in the test manual as "(1) awareness of print in environmental contexts, (2) knowledge of relations among vocabulary items, and (c) awareness of print in connected discourse" (Reid, Hresko, & Hammill, 1989, p. 3).

Materials for InvSp are a Fisher-Price plastic, magnetic, upper-case alphabet set (with all 26 letters arranged in alphabetical order in three rows of a magnetic tray, and with a second D, E, L, N, O, P, R, S, and T in a fourth row); ten picture cards representing ten words (nose, feet, table, pie, bird, nest, bridge, sock, drum, and wagon); and a scoring form. For each item, subjects were asked to identify the picture and use the plastic letters to write that word. They were encouraged to spell in "what you think would be a good way" even when it may not be the way that a grown-up would spell the word. The experimenter copied each spelling on the scoring sheet. A total of 35 points were attainable for credited spellings of 35 essential phonemes in the ten words. Credited spellings included non-conventional spellings consistent with Read's (1971) analyses of invented spellings. Burns and Richgels (1989) give complete descriptions of the task and scoring criteria, and they report

coefficients of .99 and .98 in two separate tests of the spelling task's reliability.

Procedures for administering and scoring Stbk and StPr are described in detail in Sulzby (1985) and Sulzby, Barnhart, and Hieshima (1989) respectively. Two reading scores, that is, scores for Stbk and for subjects' reading of what they wrote during StPr (StPr-R), were levels 1 to 9 as described in those sources. Our one modification of StPr was to include a second score for how subjects wrote during the task (StPr-W). These StPr-W scores were levels 1-8, based on the highest rated strategy found in each subject's writing attempt: 1 = drawing, 2 = wavy scribble, 3 = letter-like units, 4 = random letters, 5 = letters using elements from a person's name, 6 = patterned letters, 7 = invented spelling, and 8 = conventional spelling.

Tasks were presented to children individually, in counterbalanced order. Only the preschool subjects took the TERA. All sessions were tape recorded and later transcribed and double checked for accuracy.

Results

Means (and ranges) for kindergarten PPVT (Standard Score Equivalents), InvSP, StBk, StPr-R, and StPr-W were 103.25 (64-131), 20.67 (1-32), 4.08 (2-6), 4.58 (3-6), and 3.67 (1-6), respectively. Means (and ranges) for preschool for the same measures, plus TERA (Reading Quotients), were 101.25 (67-130), 6.19 (0-33), 4.44 (1-9), 5.38 (3-7), 3.75 (1-8), and 104.77 (68-131), respectively. Spearman Rank Order Correlations were computed to test relationships involving the PPVT, InvSp, Stbk, StPr-R, and StPr-W for kindergarten subjects and to test relationships involving the same measures plus TERA for preschool subjects. The correlation matrices are given in Tables 1 and 2.

Table 1

Correlational Analyses Between Tasks, Preschool Children (n=16)

	PPVT	TERA	InvSp	Stbk	StPr-R	StPr-W
PPVT	-	.05	.06	.18	.25	.18
TERA		-	.71**	.58*	.86****	.51
InvSp			-	.23	.26	.75**
Stbk				-	.62***	.18
StPr-R					-	.39
StPr-W						-

Note. Spearman rank order correlations, corrected for ties.

* $p < .02$
** $p < .002$
*** $p < .004$
**** $p < .0002$

Table 2

Correlational Analyses Between Tasks, Kindergarten Children (n=12)

	PPVT	InvSp	Stbk	StPr-R	StPr-W
PPVT	-	.47*	.94***	.91***	.60*
InvSp		-	.51*	.74**	.91***
Stbk			-	.90***	.49
StPr-R				-	-.05
StPr-W					-

Note. Spearman rank order correlations, corrected for ties.

* $p < .05$
** $p < .002$
*** $p < .0001$

Discussion

The results demonstrate that even very young children exhibit considerable variety across tasks and from one child to another. There are several statistically significant relationships between performances on the literacy and language tasks, but the degree of consistency differs between the two groups. The pattern of relatedness was more unified with the kindergarten group and more varied with the preschool group. This highlights the developmental nature of the abilities required for performance on all of the tasks.

A surprising finding was the lack of any statistically significant relationship between the PPVT-R and any of the other measures for the preschool children, while there were statistically significant relationships between the PPVT-R and all other measures for the kindergarten children. This supports the often unheeded warning by the PPVT-R authors (Dunn & Dunn, 1981) that their instrument is not an intelligence test. It does not appear to measure some sort of immutable aptitude that might be the basis for performance on any other language task at any age. Rather, with our subjects, it described an ability with receptive vocabulary whose relevance to performance on written language tasks depended on age.

An important component of any literacy program is ongoing observation and assessment. This should include children's performance of naturalistic, instructionally relevant tasks. We described InvSp as a relatively formal task because of its being less open-ended than, for example, StPr. Still, InvSp, or a teacher-modified version of it, has easy application in classrooms. The fact that InvSp is statistically significantly correlated with the formal TERA and the informal StPr-W at preschool and with all our tasks at kindergarten suggests that it can be a particularly revealing measure.

The recent emphasis on phonemic awareness as a precursor to reading and writing (e.g., Adams, 1990; Griffith & Olson, 1992; Tangel & Blachman, 1992) provides another argument for using an invented spelling task as a naturalistic diagnostic tool. When children explore writing with invented spelling, moving through its several developmental stages, they are engaged in a kind of self-directed phonemic awareness training and practice (Mann, Tobin, & Wilson, 1987; Stage & Wagner, 1992).

Only our preschool group took the TERA. Statistically significant correlations between this formal task and all of our other literacy tasks (except for StPr-W) demonstrate the diagnostic value of both our relatively formal and our relatively informal emergent literacy tasks. Teachers might find the informal tasks useful with even very young students like our preschool subjects.

With both our preschool and kindergarten groups, we found statistically significant relationships between Stbk and StPr-R. Note that the latter is only one of the two separate scores that were derived from StPr; only the reading scores from that task were statistically significantly correlated with Stbk. When attention was placed on the nature of the writing systems children used for StPr, there was a statistically significant relationship between open-ended writing and performance on InvSp.

Knowledge of developmental patterns of literacy in children is essential in order to design appropriate instruction and to assess progress. We hypothesize that there exists a pool of potential knowledge about meaning-form links in written language and of potential strategies for approaching various literacy and language tasks. Developmental differences between preschool and kindergarten children may play a crucial role in some children's being better than others at applying this knowledge and these strategies across tasks and for different purposes.

Examinations of children's behaviors across diverse literacy tasks allow us to study the contributions that various tasks make in describing what children know about written language. Our results underscore the suggestion that various measures of language and literacy development available to teachers differ in their usefulness for planning instructional support for children's ongoing literacy development. Studies such as this can contribute to a continuing, careful examination of language and literacy tasks. The results of such examination can help teachers to select tasks that will yield the most useful information and to minimize the time they spend with tasks that offer limited information.

Literacy tasks that arise from the students' needs and interests and that are meaningful in the context of ongoing classroom activities are especially appropriate with preschool and kindergarten children. Furthermore, such tasks usually provide information about children's literacy abilities that is directly relevant to subsequent teaching/learning activities in those children's classrooms. This is seldom true of standardized achievement and ability tests written for young children, especially when those tests are administered to groups rather than individually. The correlations found in this study suggest that more naturalistic tasks--such as teachers' own adaptations of the invented spelling, story book reading, and story production tasks--can provide useful information to teachers who may wish to forgo administering more formal, standardized measures.

References

Adams, M.J. (1990). Beginning to read: Thinking and learning about print. Cambridge, MA: MIT Press.

Barnhart, J.E. (1988). The relationship between graphic form and the child's underlying conceptualization of writing. In J.E. Readence & R.S. Baldwin (Eds.), Thirty-seventh Yearbook of the National Reading Conference (pp. 297-306). Chicago: National Reading Conference.

Beers, J., & Henderson, E. (1977). A study of developing orthographic concepts among first graders. Research in the Teaching of English, 11, 133-148.

Burns, J.M., & Richgels, D.J. (1989). An investigation of task requirements associated with the invented spellings of 4 year-olds with above average intelligence. Journal of Reading Behavior, 21, 1-14.

Clay, M. (1975). What did I write? Auckland: Heinemann.

Dahl, K.L. (1988, December). The construction of knowledge about written language by low SES learners during their kindergarten year. Paper presented at the National Reading Conference, Tucson, AZ.

Dyson, A.H. (1984). Learning to write/learning to do school: Emergent writers' interpretations of school literacy tasks. Research in the Teaching of English, 18, 233-264.

Dunn, L.M., & Dunn, L.M. (1981). PPVT-Revised. Circle Pines, MN: American Guidance Service.

Ferreiro, E., & Teberosky, A. (1982). Literacy before schooling (K.G. Castro, Trans.). Exeter, NH: Heinemann.

Goodman, K.S., & Goodman, Y.M. (1979). Learning to read is natural. In L.B. Resnick & P. Weaver (Eds.), Theory and practice of early reading, Vol. 1 (pp. 137-154). Hillsdale, NJ: Erlbaum.

Griffith, P.L., & Olson, M.W. (1992). Phonemic awareness helps beginning readers break the code. The Reading Teacher, 45, 516-523.

Harste, J., Burke, C., & Woodward, V. (1983). The young child as writer-reader, and informant. Final report to the National Institutes of Health (NIE-G-80-0121). Bloomington, IN: Indiana University Press.

Holdaway, D. (1979). The foundations of literacy. New York: Ashton.

Mann, V., Tobin, P., & Wilson, R. (1987). Measuring phonological awareness through the invented spellings of kindergarten children. Merrill Palmer Quarterly, 33, 365-391.

McGee, L.M., Lomax, R.G., & Head, M.H. (1988). Young children's written language knowledge: What environmental and functional print reading reveals. Journal of Reading Behavior, 20, 99-118.

Read, C. (1971). Preschool children's knowledge of English phonology. Harvard Educational Review, 41, 1-34.

Reid, D.K., Hresko, W.P., & Hammill, D.D. (1989). Test of Early Reading Ability-2. Austin, TX: ProEd.

Stage, S.A., & Wagner, R.K. (1992). Development of young children's phonological and orthographic knowledge as revealed by their spellings. Developmental Psychology, 28, 287-296.

Sulzby, E. (1985). Children's emergent reading of favorite storybooks: A developmental study. Reading Research Quarterly, 20, 458-481.

Sulzby, E. (1988). Emergent literacy and whole language. Research monograph. New York: McGraw-Hill.

Sulzby, E., Barnhart, J.E., & Hieshima, J. (1989). Forms of writing and rereading from writing: A preliminary report. In J. Mason (Ed.), Reading and writing connections (pp. 31-63). Needham Heights, MA: Allyn & Bacon.

Tangel, D.M., & Blachman, B.A. (1992). Effect of phoneme awareness instruction on kindergarten children's invented spelling. Journal of Reading Behavior, 24, 233-261.

Teale, W.H., & Sulzby, E. (1986). Emergent literacy: A perspective for examining how young children become writers and readers. In W.H. Teale & E. Sulzby (Eds.), Emergent literacy: Writing and reading (pp. vii-xxv). Norwood, NJ: Ablex.

Tierney, R., & Pearson, P.D. (1985). Toward a composing model of reading: Writing, reading, and learning. In C. Hedley & A. Baratta (Eds.), Contexts of reading (pp. 63-78). Norwood, NJ: Ablex.

LITERACY RESEARCH AND REPORTS ORDER FORM

		No. of Copies
No. 1*	Portfolio Assessment: A Survey Among Professionals [ED 348 656] by Jerry L. Johns & Peggy VanLeirsburg	out of print
No. 2	Adults' Perceptions of Change in Reading Ability Across the Life Span [ED 325 813] by M. Cecil Smith & Wesley C. Covalt	out of print
No. 3	Teacher Behaviors During Reading Instruction in Australian and American Classrooms [ED 329 930] by Roberta L. Berglund, James P. Raffini, & Lorraine McDonald	out of print
No. 4	Perceptions of Preservice and Inservice Teachers Regarding Test-Taking Procedures and Test-Wiseness Programs [ED 335 327] by Jerry L. Johns & Susan J. Davis	_____
No. 5	Disappearance of Drawings in Children's Writing: A Natural Development or a Natural Disaster [ED 334 578] by Gail Neu & Roberta L. Berglund	_____
No. 6	An Analysis of the History of Writing and the Development of Children's Literacy Acquisition [ED 333 459] by June E. Barnhart	_____
No. 7	Developing a Love of Reading: What Helps, What Hurts [ED 332 168] by Roberta L. Berglund, Richard J. Telfer, & Joan E. Heimlich	_____
No. 8	Three Reading Groups: An American Educational Tradition [ED 331 005] by Susan J. Davis	_____
No. 9	Annotated Bibliography of Whole Language Resources [ED 334 549] by Amy K. Aufmann & Mary Ann Wham	out of print
No. 10*	How Professionals View Portfolio Assessment [ED 335 668] by Jerry L. Johns & Peggy VanLeirsburg	out of print
No. 11	Socio-Educational Influences on Standardized Reading Tests, 1900-1991 [ED 335 662] by Peggy VanLeirsburg	_____
No. 12	Assessment Literacy: Perceptions of Preservice and Inservice Teachers Regarding Ethical Considerations of Standardized Testing Procedures [ED 341 666] by Peggy VanLeirsburg & Jerry L. Johns	_____

No. of Copies

No. 13 Differences in the Written Recalls of Folktales Among Above-Average, Average, and Below-Average Second-Grade Readers [ED 346 442]
by June E. Barnhart _____

No. 14 Pre-School, Kindergarten, and First-Grade Inventive Spellers' Treatment of Onsets and Rimes
by Donald J. Richgels, Lea M. McGee, & Jeanne M. Burns _____

No. 15 What Teachers Have Been Telling Us About Literacy Portfolios [ED 348 657]
by Jerry L. Johns & Peggy VanLeirsburg _____

No. 16 From Traditional Reading Clinics to Wellness Centers [ED 349 544]
by Jerry L. Johns _____

No. 17 Literacy Development in Preschool and Kindergarten Children: Patterns Between Groups and Across Tasks
by Donald J. Richgels & June E. Barnhart _____

No. 18 Teachers As Readers
by Peggy VanLeirsburg & Jerry L. Johns _____

Each report costs $3.50 (postage included). Actual postage costs will be added for large orders or overseas shipments. Please remit in U.S. funds. Please make check or money order payable to the NIU Reading Clinic and send to: Northern Illinois University, The Reading Clinic-119 Graham Hall, DeKalb, IL 60115.

Ship to:

Name _____

Address _____

_____

Amount Enclosed

City _____ State _____ Zip _____ $_____

Country _____

☐ Place me on your mailing list

An ED number is given in square brackets following the citation for some reports. For approximately 98% of the ERIC documents, the full text can be found in the ERIC microfiche collection. This collection is available in over 800 libraries across the country. Alternatively, you may prefer to order your own copy of the document from the ERIC Document Reproduction Service (EDRS). You can contact EDRS by writing to 7420 Fullerton Road, Suite 110, Springfield, VA 22153-2852, or by telephoning them at (800) 443-ERIC (3742) or (703) 440-1400.

* Reports 1 and 10 have been published in C.B. Smith (Ed.) (1991), Alternative assessment of performance in the language arts. Bloomington, IN: ERIC Clearinghouse on Reading and Communication Skills.